

Form PTO-1390 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE (Rev. 11-2000)		Attorney's Docket Number <b>43056-262911 (04106)</b>
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		U.S. Application No. (if known, see 37 CFR 1.5) <b>09/914337</b>
International Application No. PCT/CN00/00029	International Filing Date 18 February 2000 (18.02.2000)	Priority Date Claimed 23 February 1999 (23.02.1999)
Title of Invention  Technique Of Graph-Text Enciphering And Its Security Transfer On Network		
Applicant(s) for DO/EO/US  LIU, Chao		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371.</li> <li>2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371.</li> <li>3. <input type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)). This submission must include items (5), (6), (9) and (21) indicated below.</li> <li>4. <input type="checkbox"/> The U.S. has been elected by the expiration of 19 months from the priority date (Article 31).</li> <li>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input checked="" type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li>6. <input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). <ol style="list-style-type: none"> <li>a. <input checked="" type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li>7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input checked="" type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li>10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol>		
Items 11 to 20 below concern document(s) or information included:		
<ol style="list-style-type: none"> <li>11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li>13. <input type="checkbox"/> A FIRST preliminary amendment.</li> <li>14. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment.</li> <li>15. <input type="checkbox"/> A substitute specification.</li> <li>16. <input type="checkbox"/> A change of power of attorney and/or address letter.</li> <li>17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.</li> <li>18. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4).</li> <li>19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</li> <li>20. <input checked="" type="checkbox"/> Other items or information: Return postcard; check for \$500.00</li> </ol>		
Express Mail Label No.: EL910717634US		Date: August 23, 2001
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U.S. Application No. (if known, see 37 CFR 1.53) <b>09/914337</b>	International Application No. PCT/CN00/00029	Attorney's Docket Number 43056-262911 (04106)
21. <input checked="" type="checkbox"/> The following fees are submitted:		<u>CALCULATIONS PTO USE ONLY</u>
<p><b>BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(5)):</b></p> <p>Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO. \$1000.00</p> <p>International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO..... \$860.00</p> <p>International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO..... \$710.00</p> <p>International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4)..... \$690.00</p> <p>International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4)..... \$100.00</p>		
<b>ENTER APPROPRIATE BASIC FEE AMOUNT =</b>		<b>\$1000.00</b>
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).		\$0
Claims	Number Filed	Number Extra
Total claims	2- 20 =	0
Independent Claims	2- 3 =	0
Multiple Dependent Claims (if applicable)		+ 270.00
<b>TOTAL OF ABOVE CALCULATIONS =</b>		<b>\$1000.00</b>
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.		\$500.00
<b>SUBTOTAL =</b>		<b>\$500.00</b>
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).		\$
<b>TOTAL NATIONAL FEE =</b>		<b>\$500.00</b>
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property		\$0
<b>TOTAL FEES ENCLOSED =</b>		<b>\$500.00</b>
		Amount to be refunded: \$
		charged: \$
<p>a. <input checked="" type="checkbox"/> A check in the amount of \$500.00 to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. 11-0855 in the amount of \$ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 11-0855. A duplicate copy of this sheet is enclosed.</p> <p>d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. <b>Credit card information should not be included on this form.</b> Provide credit card information and authorization on PTO-2038.</p>		
<p>NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.</p>		
<p>SEND ALL CORRESPONDENCE TO:          Roger T. Frost, Esq., Reg. No. 22,176          Kilpatrick Stockton LLP          1100 Peachtree Street, Suite 2800          Atlanta, Georgia 30309-4530          Telephone: 404-815-6500</p>		
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JC03 Rec'd PCT PTO 23 AUG 2001

## TECHNIQUE OF GRAPH-TEXT ENCIPHERING AND ITS SECURITY TRANSFER ON NETWORK

### TECHNICAL FIELD OF THE INVENTION

5 The present invention relates to graph-text information transfer through a wired or wireless network, and relates more particular to a technique of graph-text enciphering and its security transfer on network

### BACKGROUND OF THE INVENTION

10 A traditional technique of graph-text enciphering and network transfer only involves using a dedicated line and dedicated network. Coding and enciphering will only be executed during transfer. But once the information arrives at the destination, the information is no longer protected. Hence, keeping and delivering this kind of information, especially those valuable information, becomes a big problem. As the era of knowledge based economy dawns, there is a great volume of graphical or text information being transferred  
15 every day through various wired or wireless networks. Some of this information involves important technical discoveries, research results, financial secrets, trade secrets, even top national security secrets. Especially with the widespread use and application of the Internet, some hackers and criminals specialize in searching and stealing important information on the network and cause breaches of security. So it is very important to guarantee the security of  
20 information transfer and storage on a network.

## SUMMARY OF THE INVENTION

The goal of the present invention is to provide a technique of graph-text enciphering and its security transfer on network. There is no need of additional hardware. Utilizing the invented digital 4D (4 dimensional) technique and existing network facilities, security of graph-text information transfer on a network can be guaranteed until arriving in the hand of a terminal recipient. If the terminal recipient separates the cryptic graph-text document from its matching reader and places them in different places, security is ensured. This technique is particularly effective when a safe is not available or documents need to be delivered by strangers.

According to the invention, the steps of enciphering the graph-text document and transferring on the network are as follows:

a. A sender of a graph-text document enciphers and compresses at least one graph-text document with a special digital code rule provided by a control center and produces a cryptic graph-text document, and then sends this cryptic graph-text document to a recipient and sends an acknowledgment to the control center respectively.

b. When the control center receives the acknowledgment from the sender, it sends at least one corresponding digital graph-text document for a reader to the recipient or a designated network address.

c. When the recipient receives the digital graph-text document for reader, the recipient sends the acknowledgment to the control center and prints out the cryptic digital graph-text document and at least one digital graph-text document for a reader received on the document sheets, and at least one corresponding reader, respectively, with

appropriate output equipment.

d. When the control center receives the acknowledgment from the recipient, it sends the coordinate of the pole and polar angle to the recipient. With these positioning parameters the recipient can cover the reader onto the corresponding enciphered document sheet with proper coordinate and right orientation, so that the original document is revealed as four dimensional images and is ready to be read. With the changing of the visual angle, the images are alternating from invisible to visible and the contrast of the images is also changing alternatively.

With different reader covers on the same enciphered document sheet, different four dimensional images can be revealed.

According to the present invention, the steps of another method for enciphering the graph-text document and transferring on the network is as follows:

a. Sender uses a digital code rule provided by the control center to encipher and compress at least one graph-text document to make a cryptic digital graph-text document to send the recipient.

b. Recipient prints out the enciphered cryptic digital graph-text document on the document sheet by the use of the output facilities. Control center sends the positioning parameters, coordinate of the pole and polar angle, to the recipient. Recipient covers the reader sheet onto the document sheet at the right position and right orientation as indicated by the positioning parameters received. Thus the original document is revealed as 4 dimensional images and is ready to be read. With the changing of visual angle, the images

are alternating from invisible to visible and the contrast of the images are also changing alternatively.

With different reader covers on the same enciphered document sheet, different four dimensional images can be revealed.

5 The advantages of the present invention are as follows:

It is possible to make full use of existing facilities, such as wired or wireless public communication networks, optical fiber communication networks, the Internet, communication satellites, and mobile or microwave communication networks, to facilitate the security transfer of the enciphered graph-text information.

Graph-text information is kept secret until it arrives at the final recipient. Documents are easy to deliver, to preserve, and to read.

Due to the use of four dimensional (4 parametric) digital enciphering, the technique is provided with the feature of multi-combination, uniqueness, arbitrariness and it seems that the retrograde action is impossible.

15 The technique can be used in many different fields such as trading, customs, taxation, credit cards, etc.

#### BRIEF DESCRIPTION OF THE DRAWINGS:

The following explains the invention with reference to the drawings.

Figure 1 is a block diagram of procedure for graph-text enciphering according to an embodiment of the present invention.

Figure 2 is a schematic diagram of the sending, transferring and receiving of the document according to the procedure.

Figure 3 is a schematic diagram for showing relative positioning of the reader sheet with respect to the document sheet.

Figure 4 is a schematic diagram of an array of the miniaturized lenses in a gridding arrangement on a reader.

5 Figure 5 is a schematic diagram of an array of the miniaturized lenses in step-shaped arrangement on the reader.

Figure 6 is a schematic diagram of an array of the miniaturized lenses in a wavelike pattern arrangement on the reader.

Figure 7 is a schematic diagram of an array of the miniaturized lenses in special shaped arrangement on the reader.

Figure 8 is a schematic diagram of the network between the general control center and other control centers.

#### DESCRIPTION OF THE PREFERRED EMBODIMENT:

15 As shown in Figs. 1, 2, and 3, one of the techniques for graph-text enciphering and transfer on network is:

When there is some random communication between sender 7 and recipient 8 and the graph-text document 2 needs to be enciphered for transfer, the sender first has to apply for certain special digital code rule 3 from control center 1. Control center 1 sends the digital code rule 3 to the sender 7. Using the special digital code rule 3, sender 7  
20 enciphers and compresses at least one graph-text document 2 to produce a cryptic digital graph-text document 4 and transfer it to recipient 8 or to a designated network address via the network 6, and sends an acknowledgment to control center 1 at the same time. After

receiving the acknowledgment from the sender 7, the control center sends a corresponding number of the digital graph-text document for readers 5 to the recipient 8 or to the designated network address via the network 6. The cryptic graph-text document 4 will be printed out on the cryptic document sheet 9 using a printer or digital facsimile machine by recipient 8, and digital graph-text documents for readers 5 would also be printed out on transparent or translucent sheets to form the same number of readers 10. There are only dot groups on the document sheet 9 and the readers 10, and the graph-text documents are illegible. In order to view the images, recipient 8 has to request positioning parameters, the coordinate of the pole O and the polar angle  $\theta$ , from the control center.

As shown in figure 3, the control center 1 sends the coordinate of the pole O and the polar angle  $\theta$  to the recipient 8. The recipient 8 then covers the reader sheet 10 onto the document sheet 9 according to the parameters receiving from the control center 1, and the original document 2 is revealed from the cryptic graph-text documents sent by sender 7. With other readers 10 covering onto the same enciphered document sheet 9, other original document 2 within cryptic digital graph-text documents for reader 4 can also be read.

Another technique of graph-text enciphering and its security transfer on network can also be seen in the figures 1, 2 and 3. That is: When there are frequent communications between sender 7 and recipient 8 and the graph-text document 2 needs to be enciphered for transfer, sender 7 first has to apply for a certain special digital code rule 3 from control center 1. Control center 1 sends the special digital code rule 3 to sender 7. With the special digital code rule, sender 7 enciphers and compresses at least one graph-text document 2 producing cryptic graph-text document 4 and transfers it to recipient 8 via the



network 6. The recipient 8 then prints the cryptic graph-text document on the document sheet 9 by the use of a printer or digital facsimile machine. There are only dot groups on the document sheet 9 and the readers 10 which are prepared beforehand, and the graph-text documents are all illegible. Recipient 8 has to request the positioning parameters, the coordinates of the pole O and the polar angle  $\theta$ , from the control center 1.

As shown in figure 3, the control center 1 sends the positioning parameters, the coordinates of the pole O and the polar angle  $\theta$ , to the recipient 8 and the recipient 8 covers the reader 10 onto the cryptic document sheet 9 according to the parameters received, so that the cryptic graph-text document 4 which was transferred by the sender 7 is then revealed as the original document 2 and is ready to be read. With other readers 10 covering onto the same document sheet 9, successively different original documents 2 within cryptic graph-text document 4 can also be read respectively.

If transfer is done through a public network, the cryptic graph-text document can be transferred alone, or together with a digital graph-text document for the reader. Both of them can be sent to the same network address or to different ones. If transfer is through the Internet they can be sent to a designated network address or virtual network address. Each address can be locked out with several locks, and any related recipient who has joined "unlocking key assembly" through the network and has been authorized to have an unlocking key for getting a reader of certain class will be able to read the cryptic document of corresponding class on the network, thus realizing the point-to-point security transfer. This technique can be applied to the security transfer of graph-text document on wired or wireless communication network.

As shown in figures 4, 5, 6, and 7, the reader 10 is composed of many miniaturized lenses 11 with special focal lengths. These lenses 11 are made of convexes or holes or the combination of convexes and holes. The arrangement of lenses 11 can be in gridded or in step-shaped or in wavelike patterns or with special combination. As shown in figure 7, the special combination arrangement of lenses is arranged with lenses of different sizes, shapes, directions and spacings and with the miniaturized change of these parameters, the different combinations of lenses can form different readers. For convenience of use, several different readers can be combined into one reader.

If the sender 7 communicates with the recipient 8 frequently, the recipient 8 can have several readers 10 with the serial number beforehand and keep them for long-time use. The reader 10 can be a rigid card or a flexible one and is made by typed or printed transparencies, or made by printing, photo etching, biting in, or heat pressing of transparent plastic sheets. Thus, the sender can only send the enciphered digital graph-text document to the recipient 8 and the recipient prints it out and reads it out by covering the specific reader 10 with the serial number which is designated by control center 1, which is kept in the recipient place beforehand, onto the document sheet in the right position and polar angle. While the reader is away from or out of the right position of the document sheet, the document is cryptic again. Worked in this way, the sender needs no longer transfer the information of readers with the document through the network and the recipient can keep the readers at all time for regular use.

As shown in figure 8, many sub-control centers 1 are set at address A, B, C, D, E... under the general control center 12. Each sub-control center 1 has its own terminal user,

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## CLAIMS

1. A technique of enciphering a graph-text document and its security transfer on a network, wherein said technique comprises the following steps:

5           enciphering and compressing at least one graph-text document from a sender with a special digital code rule provided by a control center and producing a cryptic graph-text document, and then sending this cryptic graph-text document to a recipient and sending an acknowledgment to the control center respectively;

10           in response to the control center receiving the acknowledgment from the sender, sending to the recipient or to a designated network address at least one corresponding digital graph-text document for producing a reader;

15           in response to the recipient receiving said digital graph-text document for a reader, sending an acknowledgment to the control center and printing out the cryptic digital graph-text document as well as at least one digital graph-text document for a reader on the document sheets respectively; and

20           in response to receipt by the control center of the acknowledgment from the recipient, sending from the control center a coordinate of pole and polar angle to the recipient as positioning parameters, so that the recipient can use those positioning parameters to cover the reader onto the corresponding enciphered document sheet with proper coordinate and right orientation,

          whereby the original document is revealed as four dimensional images and is ready to be read, and

whereby with the changing of the visual angle, the images are alternating from invisible to visible and the contrast of the images is also changing alternatively.

5                    2.        A process for enciphering a graph-text document and its security

transfer on a network, comprising:

using digital code rule provided by a control center for a sender to encipher and compress at least one graph-text document to make a cryptic digital graph-text document to send a recipient or a network;

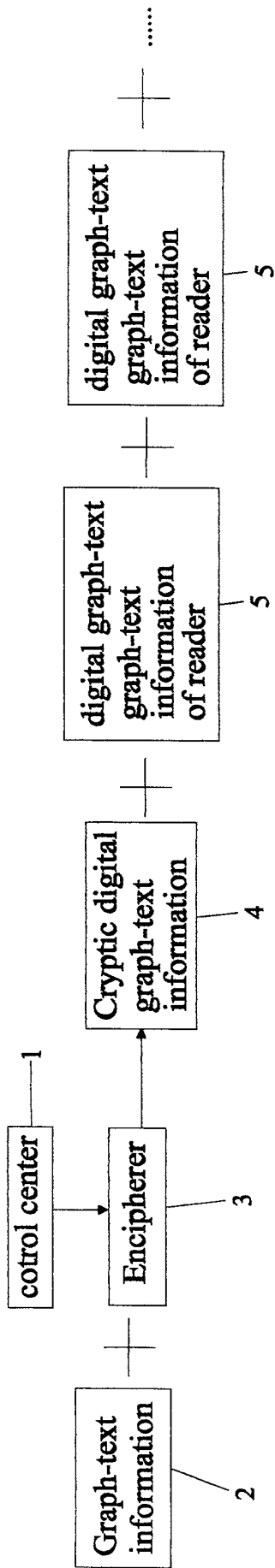
printing the enciphered cryptic digital graph-text document on a document sheet by the recipient; and

15                    sending from the control center positioning parameters including a coordinate of pole and a polar angle to the recipient, so that the recipient can cover the reader sheet onto the document sheet at the right position and right orientation as indicated by the positioning parameters received,

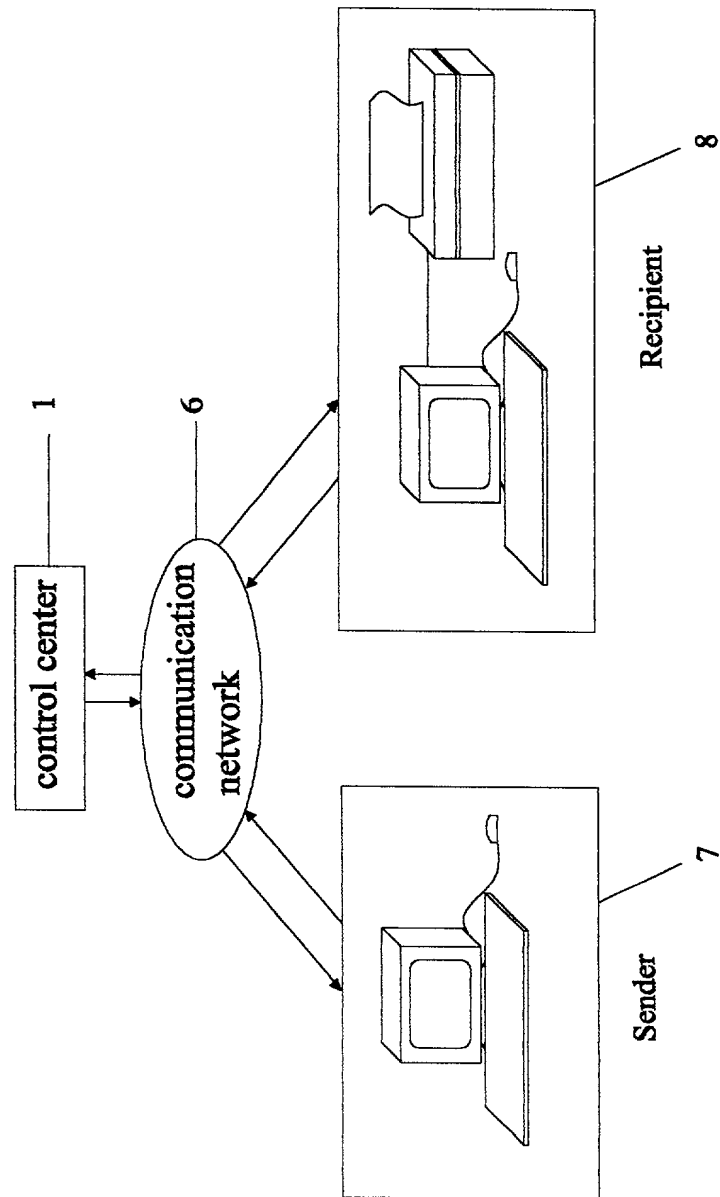
so that the original document is revealed as four dimensional images and is ready to be read, and so that with the changing of visual angle, the images alternate from invisible to visible and the contrast of the images also changes alternatively.

## ABSTRACT

A technique of enciphering the graph-text document and its security transfer on  
5 a network. The sender of the graph-text document enciphers at least one graph-text  
document with digitizing algorithm provided by a control center and producing an  
enciphered and compressed cryptic document. Sender sends this enciphered cryptic  
document to a recipient, who prints out the enciphered graph-text document. The control  
center sends the positioning parameters of a reader sheet, the coordinates of the pole and the  
polar angle, to the recipient, who puts the reader sheet onto the document sheet at the right  
position and right orientation as indicated by the parameters received. The original document  
thus is revealed as a four dimensional (four parametric) document and is ready to be read.



# Figure 1



## Figure 2

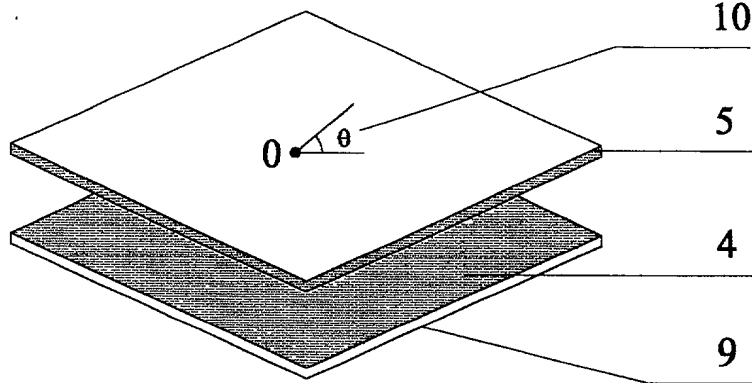


Figure 3

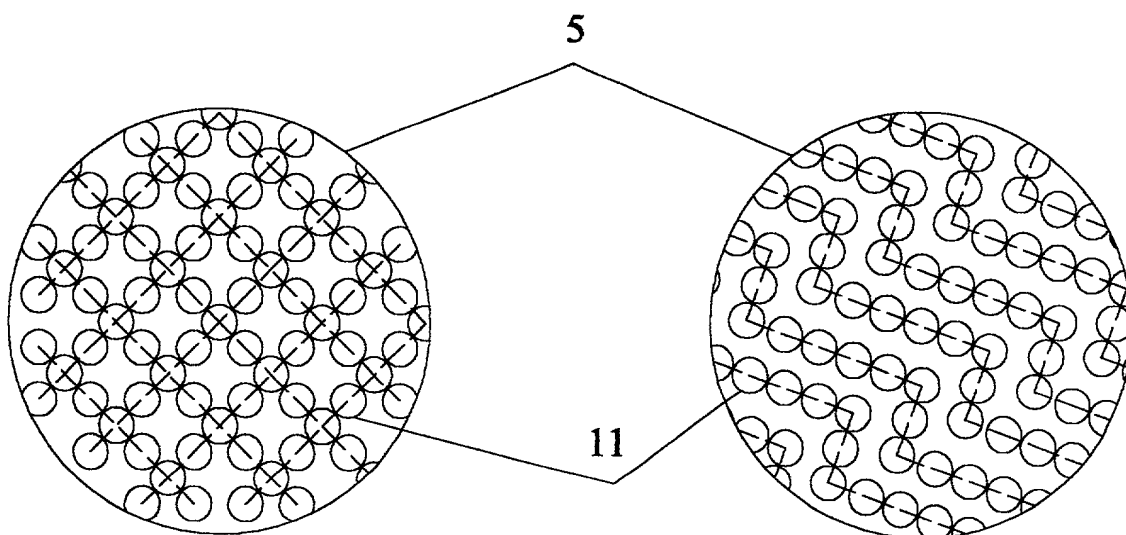


Figure 4

Figure 5

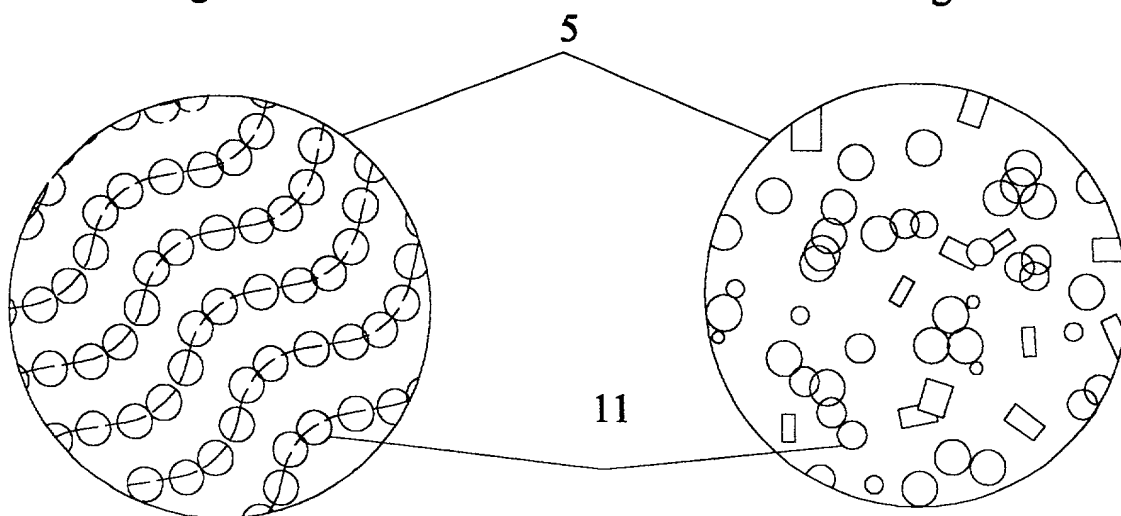


Figure 6

Figure 7



FIG. 8

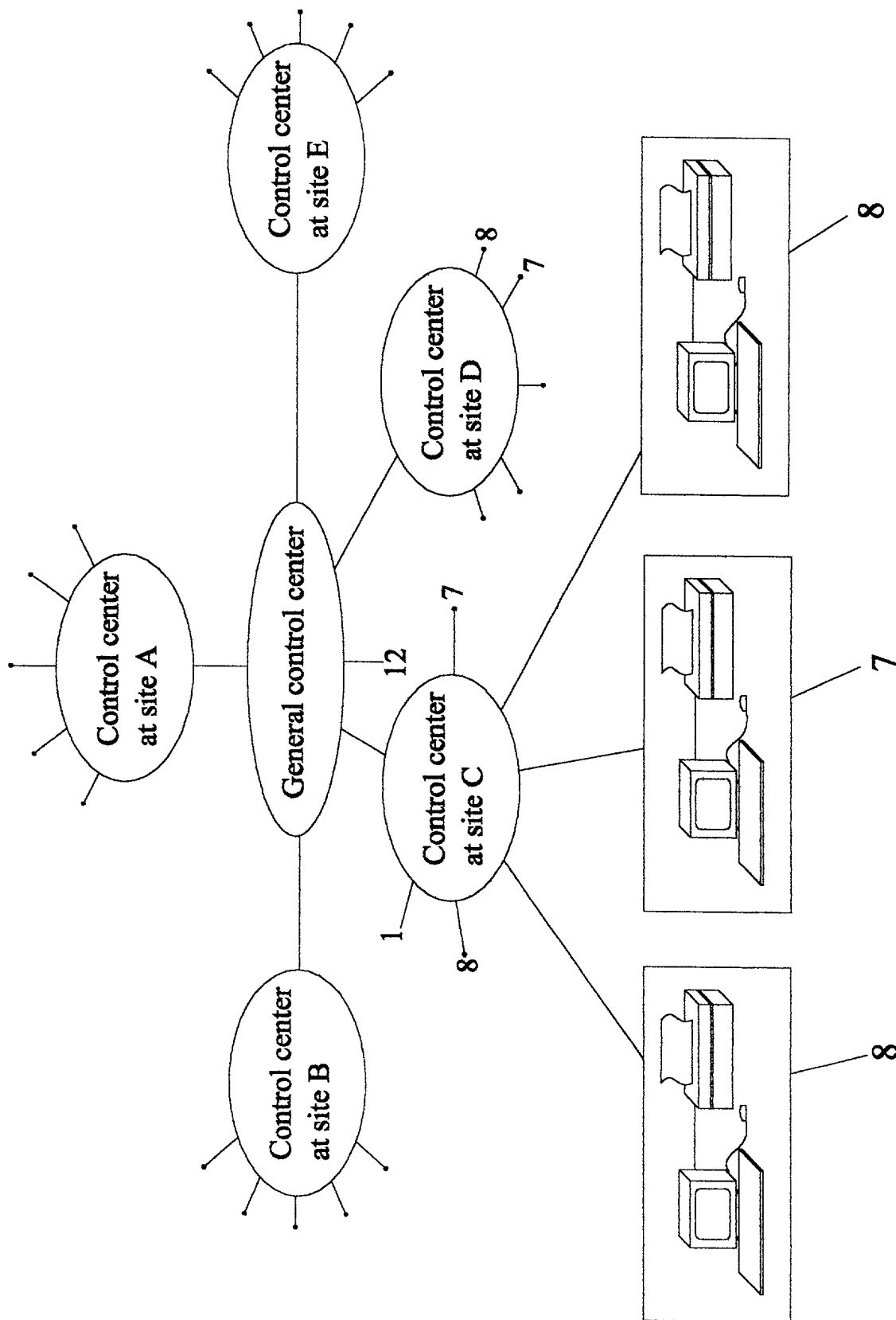


Figure 8

# Declaration and Power of Attorney For Patent Application

## 專利申請聲明及委託書

### Chinese Language Declaration

#### 中文聲明

作為下述發明者，我在此宣告：

劉超

我的住址、郵局地址和國籍均列在我名下，

中國北京朝陽區東環路2號樓1單元701室

我相信我是首創的、第一個和唯一的發明者(如只列出一人姓名)或是首創的、首位共同發明者(如列出數人姓名)。我提出作為專利申請權利要求的題目如下

圖文信更加密及在网络中安全  
傳輸的方法

如不在下面小方格中打叉則須將說明書附此：

以美國申請號碼或PCT國際申請號碼

註冊于

修正于(如適用)

As a below named inventor, I hereby declare that:

CHAO LIU

My residence, post office address and citizenship

are as stated below next to my name,

Rm 1-701, Building 2 of Donghuan Road,

Chaoyang District, Beijing, P.R. China

I believe I am the original, first and sole inventor (if

only one name is listed below) or an original, first and

joint inventor (if plural names are listed below) of the

subject matter which is claimed and for which a

patent is sought on the invention entitled

# Chinese Language Declaration

我申請享受按照美國法規第三十五節第一百一十九條列出的以下任何外國專利申請書或發明者證書的外國優先權，並確認下列具有優先權申請前立案日期的、任何外國專利申請書或發明者證書。

I hereby claim foreign priority under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

99100872.3 China  
(號碼) (國名)  
(Number) (Country)

February 23, 1999  
(申請日/月/年)  
(Day/Month/Year Filed)

是否要求優先權

☒ ☐  
是 否  
Yes No

(號碼) (國名)  
(Number) (Country)

(申請日/月/年)  
(Day/Month/Year Filed)

☐ ☐  
是 否  
Yes No

(號碼) (國名)  
(Number) (Country)

(申請日/月/年)  
(Day/Month/Year Filed)

☐ ☐  
是 否  
Yes No

我申請享受按照美國法規第三十五節一百二十條列出的以下任何美國申請書的利益，如果此申請書中提出的每項權利要求的題目未按美國法規第三十五節第一百二十條第一段的要求在以前的美國申請書中披露，則我有責任按照聯邦法規第三十七節第一、五六(甲)條提供支持專利權的實質性資料，這一法規條文生效于以前申請的立案日期之後，但在美國或 PCT 國際申請立案日期之前。

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

(申請順序號碼)  
(Application Serial No.)

(申請日期)  
(Filing Date)

(狀況)  
(已獲專利權、申請中、取消)

(Status)  
(patented, pending, abandoned)

(申請順序號碼)  
(Application Serial No.)

(申請日期)  
(Filing Date)

(狀況)  
(已獲專利權、申請中、取消)

(Status)  
(patented, pending, abandoned)

我在此聲明根據我所知而作的所有聲明都真實無誤，所有有關資料和信息的聲明也真實無誤；我還知道，按照美國法規第十八節第一千零一項，任何蓄意偽造的聲明都將受到罰款或監禁，或同時受到兩種懲罰。這番蓄意偽造的聲明將危及此申請書或任何已頒發專利的效力。

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

# Chinese Language Declaration

## 委託書：

以列名發明者的身份，我在此指定下列律師和/或代理人執行此申請並從事與專利商標公署有關的所有業務（列出姓名和註冊號碼）：

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and /or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)



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